

WHAT IS CLAIMED IS:

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1. A method of establishing a connection between an access terminal and an access network, the method comprising:
 - transmitting a first portion of an access probe to the access network;
 - receiving from the access network on a fast access indicator channel a fast access indicator corresponding to the first portion; and
 - transmitting, based on the fast access indicator, a fast connect reverse traffic channel signal from the access terminal to the access network, wherein the traffic channel signal comprises data rate control information.
2. The method of claim 1 wherein the fast access indicator is one bit.
3. The method of claim 1 further comprising discovering the fast access indicator using a predetermined fast access indicator Walsh code.
4. The method of claim 1 comprising discovering the fast access indicator using a predetermined fast access indicator Walsh code having a duration of 32 chips.
5. The method of claim 1 comprising discovering the fast access indicator using a predetermined fast access indicator Walsh code having a duration of 64 chips.
6. The method of claim 1 further comprising covering the data rate control information using a predetermined fast connect reverse traffic channel Walsh cover.
7. The method of claim 1 further comprising decoding a traffic channel assignment message received from the access network at a data rate based on the data rate control information.
8. The method of claim 1 further comprising decoding an access probe acknowledgment message received from the access network at a data rate based on the data rate control information.
9. The method of claim 1 further comprising receiving a reverse traffic channel acknowledgment from the access network at a data rate based on the data rate control information.

10. The method of claim 1 further comprising receiving a combined message
2 from the access network at a data rate based on the data rate control
information, the combined message comprising a traffic channel assignment
4 message, an access probe acknowledgment message, and a reverse traffic
channel acknowledgment.

11. The method of claim 1 wherein said first portion of an access probe is
2 sent on a first fast access channel of a plurality of fast access channels that are
staggered in time and wherein said fast access indicator is sent during a fast
4 access indicator slot immediately following said first portion.

12. The method of claim 1 wherein said first portion of an access probe is
2 transmitted on a first fast access channel of a plurality of fast access channels,
wherein each of said plurality of fast access channels uses a different PN long
4 code, and wherein said fast access indicator is identified based on the timing of
the first fast access channel.

13. The method of claim 1 further comprising covering said first portion of
2 an access probe using a PN long code having a long code mask based on a
system time value.

14. A method of establishing a connection between an access terminal and
2 an access network comprising:
transmitting a traffic channel signal to the access network, the traffic
4 channel signal comprising data rate control information; and
receiving a traffic channel assignment message from the access network
6 at a data rate based on the data rate control information.

15. The method of claim 14 further comprising covering the data rate control
2 information using a predetermined fast connect reverse traffic channel Walsh
cover.

16. The method of claim 14 wherein the traffic channel assignment message
2 is received in a single forward link message that further comprises an access
probe acknowledgment message, and wherein the a single forward link
4 message is received at a data rate based on the data rate control information.

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26. The method of claim 21 wherein said fast access probe preamble is sent
2 on a first fast access channel of a plurality of fast access channels that are
staggered in time, and wherein said fast access indicator is sent during a fast
4 access indicator slot immediately following said first portion.

27. The method of claim 21 wherein said fast access probe preamble is
2 transmitted on a first fast access channel of a plurality of fast access channels,
wherein each of said plurality of fast access channels uses a different PN long
4 code, and wherein said fast access indicator is identified based on the timing of
the first fast access channel.

28. The method of claim 21 further comprising covering said first portion of
2 an access probe using a PN long code having a long code mask based on a
system time value.

29. A method of establishing a connection between an access terminal and
2 an access network comprising:
receiving a first portion of an access probe from the access terminal;
4 transmitting a fast access indicator from the access network;
receiving data rate control information from the access terminal; and
6 transmitting a traffic channel assignment message to the access terminal
at a data rate based on the data rate control information.

30. The method of claim 29 wherein the fast access indicator is one bit.

31. The method of claim 29 further comprising covering the fast access
2 indicator using a predetermined fast access indicator Walsh code.

32. The method of claim 29 further comprising covering the fast access
2 indicator using a predetermined fast access indicator Walsh code having a
duration of 32 chips.

33. The method of claim 29 further comprising covering the fast access
2 indicator using a predetermined fast access indicator Walsh code having a
duration of 64 chips.

34. The method of claim 29 further comprising discovering the data rate
2 control information using a predetermined fast connect reverse traffic channel
Walsh cover.

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35. The method of claim 29 further comprising transmitting to the access terminal an access probe acknowledgment message at a data rate based on the data rate control information.

36. The method of claim 29 further comprising transmitting a reverse traffic channel acknowledgment to the access terminal at a data rate based on the data rate control information.

37. The method of claim 29 wherein the traffic channel assignment message is transmitted in a single forward link message that further comprises a reverse traffic channel acknowledgment message and an access probe acknowledgment message, and wherein the a single forward link message is transmitted at a data rate based on the data rate control information.

38. The method of claim 29 wherein said first portion of an access probe is received on a first fast access channel of a plurality of fast access channels that are staggered in time, and wherein said fast access indicator is transmitted during a fast access indicator slot immediately following said first portion.

39. The method of claim 29 further comprising despreading a first fast access channel of a plurality of fast access channels, wherein each of said plurality of fast access channels uses a different PN long code, and wherein said first portion of an access probe is received on the first access channel.

40. The method of claim 29 further comprising despreading said first portion of an access probe using a PN long code having a long code mask based on a system time value.

41. A method of establishing a connection between an access terminal and an access network comprising:

receiving a first portion of an access probe from the access terminal;
transmitting a fast access indicator from the access network;
receiving data rate control information from the access terminal; and
transmitting a combined message to the access terminal at a data rate based on the data rate control signal, the combined message comprising a traffic channel assignment message, an access probe acknowledgment message, and a reverse traffic channel acknowledgment.

42. The method of claim 41 wherein the fast access indicator is one bit.
43. The method of claim 41 further comprising covering the fast access
2 indicator using a predetermined fast access indicator Walsh code.
44. The method of claim 41 further comprising covering the fast access
2 indicator using a predetermined fast access indicator Walsh code having a
duration of 32 chips.
45. The method of claim 41 further comprising covering the fast access
2 indicator using a predetermined fast access indicator Walsh code having a
duration of 64 chips.
46. The method of claim 41 further comprising discovering the data rate
2 control information using a predetermined fast connect reverse traffic channel
Walsh cover.
47. The method of claim 41 wherein said first portion of an access probe is
2 received on a first fast access channel of a plurality of fast access channels that
are staggered in time, and wherein said fast access indicator is transmitted
4 during a fast access indicator slot immediately following said first portion.
48. The method of claim 41 further comprising despread a first fast access
2 channel of a plurality of fast access channels, wherein each of said plurality of
fast access channels uses a different PN long code, and wherein said first
4 portion of an access probe is received on the first access channel.
49. The method of claim 41 further comprising despread said first
2 portion of an access probe using a PN long code having a long code mask based
on a system time value.
50. An access terminal apparatus comprising:
2 a system time processor configured to generate a system time signal;
a PN long code generator configured to generate a first PN long code
4 using a long code mask based on the system time signal; and
a PN spreader configured to multiply an access channel probe signal by
6 the first PN long code.

51. The apparatus of claim 50 further comprising a mixer configured to
2 multiply a data rate control signal by a predetermined fast connect reverse
traffic channel Walsh cover to produce a covered data rate control signal,
4 wherein the PN spreader is further configured to spread the covered data rate
control signal by a second PN long code.

52. The apparatus of claim 50 wherein the first PN long code is a complex
2 PN long code, and wherein the PN spreader is configured to perform complex
multiplication of the PN long code by the access channel probe signal.

53. An access network apparatus comprising:

2 a mixer configured to mix a fast access indicator signal with a fast access indicator Walsh cover to produce a covered fast access indicator signal; and

4 a PN spreader configured to multiply the covered fast access indicator signal by a PN code.

54. The apparatus of claim 53 further comprising at least one mixer
2 configured to multiply at least one reverse power control signal by at least one
reverse power control Walsh cover, wherein each of the at least one reverse
4 power control Walsh covers is orthogonal to each other reverse power control
Walsh cover, and wherein each of the at least one reverse power control Walsh
6 covers is orthogonal to the fast access indicator Walsh cover.

55. The apparatus of claim 53 further comprising a gain block configured to
2 adjust the gain of the fast access indicator signal.

56. The apparatus of claim 53 further comprising a signal point mapping
2 unit configured to map a binary signal to +1 and -1 to produce the fast access
indicator signal.

57. The apparatus of claim 53 wherein the PN code is a complex PN code,
2 and wherein the PN spreader is configured to perform complex multiplication
of the complex PN code by the fast access indicator signal.

58. An access terminal apparatus comprising:

2 means for transmitting a first portion of an access probe to the access network;

4 means for receiving from the access network on a fast access indicator channel a fast access indicator corresponding to the first portion; and

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59. An access network apparatus comprising:

4 means for transmitting a fast access indicator from the access network;

6 terminal; and

means for transmitting a traffic channel assignment message to the
8 access terminal at a data rate based on the data rate control information.